

ABSTRACT

An optical cable, which is flame-retardant, and has excellent adhesion of the protective covering to the fiber cladding and uniform thickness of the fiber cladding, contains a polymer optical conductor containing a fiber core; a single-layer or multi-layer fiber cladding; an inner external layer which adheres to the fiber cladding with a peel force of at least 50 N; and an outer external layer which adheres to the inner external layer with a peel force of not more than 30 N. The inner external layer contains a molding composition having a first polyamide selected from a) PA 11, b) PA 12, c) PA 1012, d) PA 1212, e) a copolyamide of at least two of PA 11, PA 12, PA 1012 and PA 1212, said copolyamide containing not more than 30 mol% of a comonomer, and f) mixtures thereof. The first polyamide contains at least 50 $\mu\text{eq/g}$ of amino end groups. The first molding composition has a zero-shear viscosity of from 400 to 6000 Pas. The outer external layer contains a second molding composition which has the following i)-iii): i) from 20 to 95% by weight of a second polyamide selected from a) PA 11, b) PA 12, c) PA 1012, d) PA 1212, e) a copolyamide of at least two of PA 11, PA 12, PA 1012 and PA 1212, said copolyamide containing not more than 30 mol% of a comonomer, f) a polyetheramide of at least one of a)-e), and g) mixtures thereof, ii) from 5 to 45% by weight of a flame retardant, and iii) from 0 to 60% by weight of an impact modifier.

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